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10/849,183	05/20/2004	Akiko Kusumoto	1095.1310	7251

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EXAMINER
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DAGLAWI, AMAR A

ART UNIT	PAPER NUMBER
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2618

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/849,183	Applicant(s) KUSUMOTO ET AL.	
	Examiner Amar Daglawi	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 May 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 May 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>05/20/2004,03/26/2007</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

1. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 10 and 11 are rejected under 35 U.S.C. 101 because the heading contains non-statutory subject matter. However, it will be accepted if written as follows "A computer readable medium encoded with computer executable instructions for performing wireless communication with a master station, wherein the wireless computer program causes a computer to function as"

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1, 4-7, 9, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suh et al (US 6,798,915 B2) in view of Hirabayashi (US 5,666,154).

With respect to claim 1, Suh discloses A wireless communication device for performing wireless communication with a master station (Fig.1), comprising:

an image encoding unit (Fig.1, #12) for encoding image acquired by a camera to obtain image data of instructed quality (Abstract, fig.1, col.3, lines 1-27);

wireless communication means for transmitting, by wireless, the image encoded by said image encoding unit to the master station (Fig.1, col.3, lines 1-27, col.1, 19-26);

wireless communication state judging (Fig.1, #13) means for judging a state of the wireless communication with the master station (col.3, lines 1-27, fig.3, col.5, lines 5-35)

[A master station is part of any network];

image quality decision means (Fig.1, #13) for determining quality of image to be encoded by said image encoding unit, in accordance with the wireless communication state (col.5, lines 5-35); and image quality instruction means (Fig.1, #13) for instructing said image encoding unit to encode the image with the quality determined by said image quality decision means (Abstract, col.3, lines 5-67, col.4, lines 1-25, Fig.1, Fig.2, col.2, lines 25-50).

However, Suh fails to explicitly teach image acquired by a camera which is taught in the same field of endeavor by Hirabayahi (See Fig.2, col.2, lines 25-50).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Suh (the apparatus in fig.1) to incorporate a camera 17 as taught by Hirabayashi so as to input images into the apparatus.

With respect to claim 4, Suh as modified by Hirabayahi further teaches the wireless communication state judging means judges the wireless communication state on the basis of a receive level of a predetermined signal transmitted from the master station (Suh, col.3, lines 5-67, col.4, lines 1-25) [The base station (master station) periodically broadcasts one beacon signal per second to identify a wireless subscriber in a given area and the mobiles continue to listen for a new beacon].

With respect to claim 5, Suh as modified by Hirabayahi further teaches the predetermined signal is a beacon signal (Suh, col.3, lines 5-67, col.4, lines 1-25) [The base station (master station) periodically broadcasts one beacon signal per second to

identify a wireless subscriber in a given area and the mobiles continue to listen for a new beacon].

With respect to claim 6, Suh as modified by Hirabayahi further teaches said image quality decision means predicts a future communication state on the basis of the wireless communication state and determines the image quality in accordance with the predicted communication state (Suh, col.3, lines 5-67, col.4, lines 1-25) [The base station (master station) periodically broadcasts one beacon signal per second to identify a wireless subscriber in a given area and the mobiles continue to listen for a new beacons].

With respect to claim 7, Suh as modified by Hirabayahi further teaches said wireless communication state judging means detects error of a predetermined signal transmitted from the master station and judges the wireless communication state on the basis of occurrence of the error (Suh, col.3, lines 5-67, col.4, lines 1-25) [The base station (master station) periodically broadcasts one beacon signal per second to identify a wireless subscriber in a given area and the mobiles continue to listen for a new beacon. An error occurs when a mobile fails to be identified].

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suh in view of Hirabayashi as applied to claims 1 above, and further in view of Nakamura et al (US 2002/0118756 A1).

With respect to claim 2, Suh in view of Hirabayashi teaches all the limitation of claim 1 except for a processing load measurement means for measuring processing

load imposed on said wireless communication means wherein said image quality decision means determines quality of image to be encoded by said image encoding unit in accordance with the processing load on said wireless communication means and the wireless communication state which taught in the same field of endeavor by Nakamura et al (US 2002/0118756 A1) (See par [0050;0056], Fig.5).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Suh in view of Hirabayahi (the apparatus) to incorporate the CPU load detection module (601) as taught by Nakamura so as to detect the current load of the CPU 11 on the basis of time required for the compression coding processing.

With respect to claim 3, Suh in view of Hirabayahi and further in view of Nakamura further teach said image quality decision means determines an image quality with higher data compression ratio, out of an image quality matching the processing load on said wireless communication means and an image quality matching the wireless communication state, as the quality of image to be encoded by said image encoding unit (Nakamura par [0050; 0056]).

With respect to claim 9, Suh discloses a wireless communication method for performing wireless communication with a master station comprising the steps of:

Judging by wireless communication state judging means (Fig.1, #13) a state of the wireless communication with the master station (col.3, lines 1-27, fig.3, col.5, lines 5-35) [A master station is part of any network].

determining, by image quality decision means (Fig.1, #13), quality of image to be encoded by an image encoding unit, in accordance with the wireless communication state (col.5, lines 5-35);

instructing, by image quality instruction means (Fig.1, #13), encoding of image with the quality determined by the image quality decision means (Abstract, col.3, lines 5-67, col.4, lines 1-25, fig.1, fig.2, col.2,,lines 25-50);

encoding, by the image encoding unit (Fig.1, #12), image acquired by a camera to obtain image data of the quality instructed by the image quality instruction means (Abstract, Fig.1, col.3, lines 1-27); and transmitting, by wireless communication means, the image encoded by the image encoding unit to the master station by wireless (Fig.1, col.3, lines 1-27, fig.3, col.1, lines 19-26).

However, Suh fails to explicitly teach image acquired by a camera which is taught in the same field of endeavor by Hirabayahi (See Fig.2, col.2, lines 25-50).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Suh (the apparatus in fig.1) to incorporate a camera 17 as taught by Hirabayashi so as to input images into the apparatus.

With respect to claim 10, Suh discloses wireless communication means for transmitting image encoded by an image encoding unit which encodes image acquired by a camera to obtain image data of instructed quality, to the master station by wireless



(Fig.1, col.3, lines 1-27, col.1, lines 19-26) [a master station is part of any network]; wireless communication state judging means (Fig.1, #13) for judging a state of the wireless communication with the master station (col.3, lines 1-27, Fig.3, col.5, lines 5-35); Image quality decision means (Fig.1, #13) for determining quality of image to be encoded by the image encoding unit in accordance with the wireless communication state (col.5, lines 5-35);

Image quality instruction means for instructing the image encoding unit to encode the image with the quality determined by the image quality decision means (Abstract, col.3, lines 5-67, col.4, lines 1-25, fig.1, fig.2, col.2, lines 25-50).

However, Suh fails to explicitly teach image acquired by a camera which is taught in the same field of endeavor by Hirabayahi (See Fig.2, col.2, lines 25-50).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Suh (the apparatus in fig.1) to incorporate a camera 17 as taught by Hirabayashi so as to input images into the apparatus.

With respect to claim 11, Suh discloses wireless communication means for transmitting image encoded by an image encoding unit which encodes image acquired by a camera to obtain image data of instructed quality, to the master station by wireless (Fig.1, col.3, lines 1-27, col.1, lines 19-26) [a master station is part of any network]; wireless communication state judging means (Fig.1, #13) for judging a state of the wireless communication with the master station (col.3, lines 1-27, Fig.3, col.5, lines 5-

35]; Image quality decision means (Fig.1, #13) for determining quality of image to be encoded by the image encoding unit in accordance with the wireless communication state (col.5, lines 5-35);

Image quality instruction means for instructing the image encoding unit to encode the image with the quality determined by the image quality decision means (Abstract, col.3, lines 5-67, col.4, lines 1-25, fig.1, fig.2, col.2, lines 25-50).

However, Suh fails to explicitly teach image acquired by a camera which is taught in the same field of endeavor by Hirabayahi (See Fig.2, col.2, lines 25-50).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Suh (the apparatus in fig.1) to incorporate a camera 17 as taught by Hirabayashi so as to input images into the apparatus.

Claim 8 is rejected under under 35 U.S.C. 103(a) as being unpatentable over Suh et al (US 6,798,915 B2) in view of Nakamura et al (US 2002/0118756 A1) and further in view of Hirabayashi (US 5,666,154).

Suh discloses A wireless communication device for performing wireless communication with a master station, comprising:  
  
an image encoding unit (Fig.1, #12) for encoding image acquired by a camera to obtain image data of instructed quality (Abstract, fig.1, col.3,, lines 1-27);

wireless communication means for transmitting, by wireless, the image encoded by said image encoding unit to the master station (Fig.1, col.3, lines 1-27, col.1, lines 19-26) [the master station is part of any network];

However, Suh fails to expressly teach processing load measurement means for measuring processing load imposed on said wireless communication means; image quality decision means for determining quality of image to be encoded by said image encoding unit, in accordance with the processing load measured by said processing load measurement means; and image quality instruction means for instructing said image encoding unit to encode the image with the quality determined by said image quality decision means which is taught in the same field of endeavor by Nakamura ( Fig.5, See par [0050;0059].

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Suh (the apparatus) to incorporate the CPU load detection module (601) as taught by Nakamura so as to detect the current load of the CPU 11 on the basis of time required for the compression coding processing.

Also, Suh in view of Nakamura fails to explicitly teach image acquired by a camera which is taught in the same field of endeavor by Hirabayahi (See Fig.2, col.2, lines 25-50).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Suh in view of Nakamura (the apparatus

in fig.1) to incorporate a camera 17 as taught by Hirabayashi so as to input images into the apparatus.

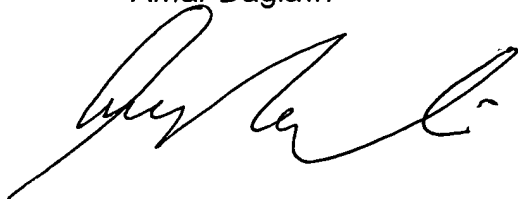
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amar Daglawi whose telephone number is 571-270-1221. The examiner can normally be reached on Monday- Friday (7:30 AM- 5:00 AM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lana N. Le can be reached on 571-272-7891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amar Daglawi



1-07-08

LANA LE  
PRIMARY EXAMINER